

PROPOSAL EVALUATION

Proposition 84 Integrated Regional Water Management (IRWM) Grant Program

Implementation Grant, Round 1, FY 2010-2011

Applicant	Antelope Valley - East Kern Water Agency	Amount Requested	\$6,000,000
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Proposal Title	Water Supply Stabilization Project No. 2	Total Proposal Cost	\$37,573,572
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PROPOSAL SUMMARY

One project is included in the proposal: (1) Water Supply Stabilization Project No. 2.

PROPOSAL SCORE

Criteria	Score/ Points Possible	Criteria	Score/ Points Possible
Work Plan	12/15	Economic Analysis – Water Supply Costs and Benefits	9/15
Budget	3/5	Water Quality and Other Expected Benefits	6/15
Schedule	5/5	Economic Analysis – Flood Damage Reduction	3/15
Monitoring, Assessment, and Performance Measures	2/5	Program Preferences	8/10
Total Score (max. possible = 85)			48

EVALUATION SUMMARY

The following is a review summary of the proposal.

Work Plan

The criterion is fully addressed, but is not supported by thorough documentation or sufficient rationale. All necessary components are included, such as, summary, maps, list of permits needed, CEQA compliance, consistent plans/specifications and scientific/technical supporting information. The proposal is consistent with Lahontan Basin Plan.

The Proposal includes one project. The Purpose and Need section lists 5 of the 12 objectives of the Antelope Valley Plan that the project would meet, but fails to describe how it meets these objectives. The project tasks are laid out well, however, some descriptions are not detailed; for example, Task 3.5 fails to specify what specific kind of models will be used and Task 6.1 does not discuss what constitutes implementation or the construction standards. The technical information estimates the recharge capacity based on the project's infiltration rate; however, the Work Plan lacks discussion about the probability of this water being available from the State Water Project in the future, which is a critical aspect of project feasibility.

Budget

The criterion is less than fully addressed, and documentation or rationales are incomplete or insufficient. A significant portion of the non- construction tasks will be performed by subcontractors. Generally, lump sum values are provided for the subcontracted tasks without documentation on how these amounts were determined, so it is difficult to determine if the costs are reasonable. There are inconsistencies between the costs presented in the narrative and the budget table. For example, in Task 8.6, the narrative summary indicated the cost would be \$42,500, but the budget table value is \$186,000. Also, the Task 5.6 cost breakdown estimated 39 sheets at a cost of \$184,000; however, adding up the number of sheets and costs in the subtasks yielded 42 sheets and \$220,800, and adding up the 5.6 subtasks on the budget table yields a task cost of \$194,440. The design drawings show seven wet wells in the pump station, but the cost estimate only includes four vertical pumps and motors. In the Existing Data and Studies section; four studies are briefly described, but only one study (USGS Report) is provided to support the conclusions.

Schedule

The criterion is fully addressed, and supported by thorough and well-presented documentation and logical rationale. The schedule is well prepared, corresponds to tasks described in the Work Plan, and is reasonable. The schedule shows six months between the assumed contract execution date (6/1/2011) and the start of construction (12/1/2011).

Monitoring, Assessment, and Performance Measures

The criterion is marginally addressed, and documentation is incomplete or insufficient. Rather than providing the required Project Performance Measures Table, the Applicant includes a narrative, which does not clearly present desired outcomes, output indicators, outcome indicators, nor measurement tools and methods. The performance measures focused mostly on expected groundwater surface elevation changes and groundwater recharge rates. This section covers only three of the five objectives noted in the Work Plan. The Applicant fails to present monitoring, assessment, and performance measures for the environmental resource and land use planning management objectives they claim the project meets.

Economic Analysis – Water Supply Costs and Benefits

Above average levels of benefits relative to costs can be realized through this proposal; however, the quality of the analysis is moderate and supporting documentation is partially unsubstantiated. The Proposal includes one project. Monetized water supply benefits claimed are \$274.543 million (M). These benefits include \$223.657 M of avoided cost of building and operating Antelope Buttes Reservoir and the associated avoided cost of surface water treatment, and \$50.887 M of avoided cost associated with 6,000 acre feet per year (AFY) of surface water evaporation from Antelope Buttes.

Water supply for the project, 20,000 AFY, is assumed to be available at a cost of \$180 per AF which is primarily electricity cost. It is not clear that 20,000 AF will be available in every year. From page 1 of the USGS report, “water will be recharged during the winter months (November through February) when imported water is available.” If water is not available March through October, how much can be recharged?

The Applicant’s State Water Project (SWP) Table A amount is 141,400 AFY. If SWP Table A is 62 percent reliable, average Table A supply would be about 88,000 AFY. Current demand is about 100,000 AFY and is expected to increase about 8 percent by 2025. The amount of supply the project might obtain from Table A contract varies, but it could be less than their demand in most years. In these years, there might be no

excess supply to recharge. The project might obtain Article 21 water, but this supply is very uncertain. They might purchase water transfers, but this water would cost more. Attachment 6, page 1 shows that 23,000 AFY could be recharged at most, so it may not be physically possible to compensate for low supply years. Furthermore, from the State perspective, whatever water can be recharged might have an opportunity cost for use elsewhere that should be counted.

The avoided project is not strictly comparable to the subject project included in the application. The avoided project has 31,000 AFY of storage. The amount of groundwater storage available for the subject project may be as much as 142,500 AFY (USGS report page 14). The applicant's ability to recharge groundwater annually to match the claimed storage capacity is unsupported. The avoided project would lose 6,000 AFY to evaporation. The subject project may be economically superior to the avoided project. However, the avoided project might have the same problems as the subject project in terms of water supply availability.

Economic Analysis – Water Quality and Other Expected Benefits

Only below average levels of benefits relative to costs can be realized through this proposal, as demonstrated by the analysis and supporting documentation. Monetized water quality and other benefits claimed are \$26.82 M. This benefit is the avoided cost of granulated activated carbon treatment that is required for surface water. It is assumed that this treatment would require a capital cost of \$11.5 M plus \$65 per AF treated.

Economic Analysis – Flood Damage Reduction

Low levels of benefits relative to costs can be realized through this proposal, as demonstrated by the qualitative analysis and supporting documentation.

Program Preferences

The Proposal includes a project that implements multiple Program Preferences, addresses long term drought preparedness and thoroughly documents the breadth and magnitude of the Program Preferences to be implemented; however, it does not address a critical water supply or water quality need of a disadvantaged community. Claimed program preferences include: Include regional projects or programs, Contribute to attainment of one or more of the objectives of the CALFED Bay-Delta Program, Drought preparedness, Use and reuse water more efficiently, Climate change response actions, and Protect surface water and groundwater quality.